1-1952

UWOMJ Volume 22, Number 1, January 1952

Western University

UNIVERSITY OF WESTERN ONTARIO

MEDICAL JOURNAL

CONTENTS

● ORIGINAL ARTICLES

Headache 1
J. R. Augustine, '52

Homoeopathy 10
J. R. Leitch, B.A., '52

Anxiety 16
K. R. Ferguson, '52

The Papyrus Ebers 26
P. Laird Gibbs, B.A., '52

● ABSTRACTS 31

Volume 22 **JANUARY, 1952** **Number 1**

LONDON, CANADA

Rapid Clinical Response

WITH

Chloromycetin®

MEANS EARLY RETURN TO NORMAL ACTIVITIES

Continuity of treatment with well-tolerated CHLOROMYCETIN produces a rapid clinical response in a wide variety of bacterial, viral, and rickettsial diseases. Convalescence is smooth, and an early return of the patient to his normal activities may be anticipated.

CHLOROMYCETIN (chloramphenicol, Parke-Davis) *is supplied in the following forms:*

CHLOROMYCETIN Kapseals,® 250 mg., bottles of 16 and 100.

CHLOROMYCETIN Capsules, 100 mg., bottles of 25 and 100.

CHLOROMYCETIN Capsules, 50 mg., bottles of 25 and 100.

CHLOROMYCETIN Cream, 1%, 1 ounce collapsible tubes.

CHLOROMYCETIN Ophthalmic Ointment, 1%, ⅛ ounce collapsible tubes.

CHLOROMYCETIN Ophthalmic, 25 mg. dry powder for solution, individual vials with droppers.

CHLOROMYCETIN Palmitate, Pediatric, 60 cc. bottles.

PARKE, DAVIS & COMPANY

MEDICAMENTA VERA · PD & CO.

FIVE REASONS WHY

Ramses® VAGINAL JELLY MERITS YOUR CONFIDENCE

- provides the fastest immobilizing time recognized by medical authorities.

- occludes cervix for as long as 10 hours.

- will not melt or run at body temperatures.

- nontoxic and nonirritating, as proved by both laboratory and clinical tests.

- continuously acceptable to patients because of its crystal clarity, agreeable odor.

Every comparative test proves . . . there is no better product available.

*Active ingredients, by weight: Dodecaethyleneglycol Monolaurate 5%, Boric Acid 1%, Alcohol 5%.

The word RAMSES is a registered trademark.

JULIUS SCHMID (Canada) Ltd.
31 Teraulay Street
Toronto, Ontario

An Improved
URINARY ANTISEPTIC

"UROMAND"

Brand of "Urosine" and Mandelate Compound

Uromand has proven a very effective urinary antiseptic, its administration unattended by untoward effects associated with sulfonamide therapy. When Uromand is given in adequate dosage the urine pH reaches 5.0 to 5.3, at which level, especially in the presence of Urosine, many pathogenic organisms are unable to flourish and the urine becomes sterile.

"UROMAND"

C.T. No. 8 Frosst

Urosine (brand of Hexamine)	1¼ gr. (80 mg.)
Calcium mandelate	5 gr. (0.3 G.)
Ammonium acid phosphate	2½ gr. (0.16 G.)

DOSE

Eight to 20 tablets per day may be needed to provide full therapeutic effects. At least 8 glasses of water should be taken in the 24 hours to assure adequate diuresis.

MODES OF ISSUE

Bottles of 100 and 500 tablets.

Complete therapeutic information supplied promptly on request.

Charles E. Frosst & Co.

MONTREAL CANADA

Frosst
SINCE 1899
THE SYMBOL OF PROGRESS
IN PHARMACEUTICAL RESEARCH

FOR THE PREVENTION AND TREATMENT OF VASCULAR ACCIDENTS . . .

"CERUTIN"

Brand of Rutin with Vitamin C

Where increased capillary fragility is evident, in Hypertension, Diabetes and other conditions:

"CERUTIN"

- **provides a control measure for retinal haemorrhage, diabetic retinitis, apoplectic attacks;**
- **is non-toxic;**
- **rarely produces allergic reactions.**

"CERUTIN"

C. T. No. 388 "Frosst"

Rutin	20 mg.
Ascorbic acid	25 mg.

C. T. No. 389 "Frosst"

Rutin	60 mg.
Ascorbic acid	120 mg.

DOSE

One tablet three times daily.

MODES OF ISSUE

Bottles of 40 and 100 tablets.

Complete therapeutic information on request.

Charles E. Frosst & Co.

MONTREAL CANADA

Frosst SINCE 1899 THE SYMBOL OF PROGRESS IN PHARMACEUTICAL RESEARCH

University of Western Ontario
MEDICAL JOURNAL

Published Quarterly by

The Hippocratic Society of the
University of Western Ontario Medical School

Authorized as Second Class Mail by the Post Office Department at Ottawa

MEDICAL JOURNAL
University of Western Ontario
Vol. 22 January, 1952 No. 1

HEADACHE*

JOHN R. AUGUSTINE, '52

Introduction

The study of headache is a broad, disjointed field in which there have been comparatively few experimental results and even fewer results of a practical nature. This paper will summarize the study of the subject and present some clinical findings, so that we may possibly gain an insight into the magnitude and possibilities of this important symptom.

Definition

Headache is a symptom and a common one. It is not a disease. In 1948 in the United States of America, it is estimated that there were seven and one half billion headaches, which resulted in the sale of eleven million pounds of aspirin. It is also important to realize that "head pain" and "headache" are two distinctly different entities. Head pain is usually superficial, localized and the cause is usually apparent upon investigation of the region. Headache, however, is usually not localized, is a deeper pain and may vary in intensity, duration and occurrence.

The complaint of headache is one of the commonest of all subjective symptoms and is found alike in those with physical pathology and those with psychoneurotic disorders. Because headache has long been accepted as a symptom in many functional disorders, it has long been a neglected field of study.

Classification

It might be proper at this time to refer to a classification of the causes of headache. Almost every author on this subject compiles his own classification, but the most practical that I have seen is that presented by Blumenthal and Fuchs, with some additions by Chodoff.

CAUSES OF HEADACHE

(1) Primary intracranial disease

(a) Meningeal irritation—meningitis
—subarachnoid haemorrhage, etc.

(b) Space-taking lesions—brain tumour
—brain abscess
—subdural haematoma

(c) Lumbar puncture headache

(2) Vascular

(a) Migraine

*Read at a meeting of The Alpha Omega Alpha Fraternity, Beta Chapter, University of Western Ontario, on Thursday, December 13, 1951.

(b) Hypertensive encephalopathy
(c) Histamine cephalalgia (Horton's syndrome)
(d) Temporal arteritis
(e) Cerebral angiopathy

(3) Neuralgia
(a) Trigeminal neuralgia
(b) Glossopharyngeal neuralgia
(c) "Atypical facial neuralgia"
(d) Sluder's neuralgia

(4) Disease primarily of ocular, nasal or oral structures.
(5) Pyrexial and toxic causes.
(6) Post-traumatic cerebral syndrome.
(7) Psychogenic headache
(a) Tension (anxiety) state
(b) Conversion hysteria

From a classification of this type, we can see the many possibilities that the symptom of headache can present. Most authors admit that psychogenic factors are the cause of headache in about 90% of cases. Zeldowicz, reporting in 1950, stated — "the most common type of headache does not show any demonstrable tissue pathology, and is presumably due to functional disorder of the autonomic nerves, and frequently is associated with a psychogenic condition." With reference to the important organic conditions that headache may herald, it is, therefore, of primary importance to differentiate the functional from the organic headache. This will be attempted later.

Mechanism of Headache

Harold G. Wolff of New York City is the foremost worker in the field of headache pathogenesis. Wolff has gained his knowledge from the study of patients observed during surgical procedures on the head. A summary of his findings is as follows:

1) All the tissues covering the cranium, especially the arteries, are more or less sensitive to pain.
2) Intracranially, the following areas were found to be sensitive to pain:
   a) the great venous sinuses and their tributaries from the brain surface.
   b) parts of the dura mater at the brain base.
   c) the dural and cerebral arteries at the base of the brain.
   e.g., the circle of Willis, internal carotid, middle meningeal arteries, etc.
   d) the nerves innervating the above structures, i.e., cranial nerves V, IX, and X, and the upper three cervical nerves.
3) Those areas of the head not sensitive to pain include:
   a) the cranium (with the diploic and emissary veins).
   b) the brain parenchyma.
   c) most of the dura mater (with the exception of the dura at the brain base).
   d) most of the pia-arachnoid.

e) the ependymal lining of the ventricles.
f) the choroid plexuses.

Sir Guy Symond in 1946, and Penfield of Montreal have, in the main, verified these pain-sensitive areas. Other research workers have confirmed the theory that chronic or recurring headache is of primary vascular origin.

Wolff has further shown that pain arising by stimulation of the pain-sensitive structures on or above the tentorium cerebelli is mediated by the trigeminal nerve to various areas in front of a line drawn vertically from the ears across the top of the head. Similarly, he has also shown that stimulation of pain-sensitive areas on or below the tentorium cerebelli results in pain, in various regions of the head behind the line mentioned previously. The pathways of this posterior localizing pain are chiefly the glossopharyneal and vagus nerves and the upper three cervical nerves.

Wolff and later workers have then formulated six basic mechanisms of headache using this data:

1) Traction of the veins passing from the brain surface to the great venous sinuses and displacement of the great venous sinuses.
2) Traction on the middle meningeal arteries.
3) Traction on the large arteries and their chief branches at the brain base, i.e., the circle of Willis.
4) Distention and dilatation of the intracranial arteries.
5) Inflammation in or about any pain-sensitive area of the head.
6) Direct pressure by tumours on the cranial and cervical nerves containing many afferent pain fibers from the head, i.e., cranial nerves V, IX, and X, and the upper three cervical nerves.

Two extra-cranial mechanisms of headache have since been added:

1) Distention of arteries, chiefly branches of the external carotid artery.
2) Contraction and spasm of muscles of the neck and scalp. This latter mechanism, as we shall see later, may be related to postural strain, reflexes from pain-sensitive nasal, paranasal, and ocular structures and particularly tension-anxiety states.

Zeldowicz believes that distention of the walls of dilated vessels is the prime mechanism of headache. This distention may occur because of active vasodilatation, increased intravascular pressure and/or diminished support of these vessels from the outside. This latter mechanism of vasodilatation is seen with decreased cerebrospinal fluid. It is well known that cerebral vessels carry with them sensory nerves and by traction, displacement and/or distention of these sensitive vessels, pain is carried centrally mainly by the fifth and to a lesser extent the ninth and tenth cranial nerves and the upper three cervical nerves.

It has since been proven that intracranial disease produces headache by more than one of the above mechanisms, and involvement of more than one pain-sensitive structure. Therefore, traction, displacement, dis-

tention and inflammation of cranial vascular structures are the chief causes of organic headache.

We may now look with a more practical eye on some of these experimental results. Intracranial expanding tumours, by virtue of stretching, displacing or distention of the aforementioned pain-sensitive organs, produce pain. Headache following lumbar puncture has been shown to be increased by bilateral compression of the jugular veins and decreased by intrathecal injection of physiological saline to restore the volume of cerebrospinal fluid. Lumbar puncture headache appears within twenty-four hours in about 25% of cases following lumbar puncture. Most characteristic of its features is its occurrence when the subject is erect and its virtual elimination when he is horizontal. It would then appear that spinal puncture headache is due to decreased volume and hence pressure of the cerebrospinal fluid which leads to a loss of support of pain-sensitive cerebral vessels. Distention of these vessels (as we will recall) is one of the mechanisms of headache. Wolff also believes that the lowered intracranial pressure allows the brain to make traction on pain-sensitive areas and so augments this spinal puncture headache. Pickering confirmed these findings in a study of seven patients in 1950.

Intracranial pressure itself is not directly related to headache. Unless the pressure is so great as to produce traction or displacement of pain-sensitive structures, no headache will result. It has been demonstrated on human subjects that the cerebrospinal fluid pressure may be raised to levels of 600 mm. of water by subarachnoid injection of saline without precipitating headache. But when intracranial pressure is low (as we have seen following animal puncture) headache occurs due to the resultant dilatation of cerebral vessels which are pain-sensitive.

Headache resulting from meningitis is postulated to be due to irritation by chemical substance(s) from the area(s) of inflammation. The chemical substances affect the pain-sensitive nerves which end intracranially.

Psychogenic headache is believed by Friedman to be due to two mechanisms:

1) changes in the calibre of cranial vessels (chiefly vasodilatation).
2) spasm or tonic contraction of skeletal muscles of the head and neck. The quip, "he gives me a pain in the neck," is, therefore, considered to be based on good physiology.

It is now felt that the basic mechanism producing headache is a vasomotor change, chiefly vasodilatation. This vasodilatation may itself be caused by familial predisposition (of which little actual proof is present), exaggerated vascular reflexes (as in migraine) or by hypersensitivity to histamine, as in histamine cephalalgia. Another theory is advanced that emotional factors on a higher autonomic integrated level may set off reflexes associated with headaches. These reflexes are postulated to pass via the hypothalmus and hence to the cerebral vessels by the intermediary action of chemical substances (acetylcholine, histamine

and others), thereby producing vasomotor disorders and headache. Like other theories in this field, it is attractive, fills in many gaps, but is as yet apparently unproved. Friedman also believes that metabolic, allergic and endocrine factors may also contribute to the cause of headache, but apparently there has been little work done on this aspect of the problem.

Clinical Aspects

Experimental work of interest has been done by Wolff and his associates on the problem of sinus headache. Pain was elicited and graded in the subjects by mechanical, faradic and chemical stimulation of the sinuses. The findings are of interest. Wolff discovered that the mucosal lining and cavities of the sinuses were relatively pain-free when inflamed or artificially stimulated, and that the vast majority of sinus disease is associated with inflammation and engorgement of the neighbouring nasal structures. It is, then, his conclusion that the site of headache in sinusitis is related chiefly to the region of the neighbouring inflamed nose. Further, if it be the superior nasal structures that are most affected, headache is most pronounced in the front and top of the head and between the eyes. If it be the middle or lower nasal structures that are chiefly inflamed in connection with the sinus inflammation, pain is most apt to lie over the temples, zygoma, teeth and jaws. Wolff contends that there has never been proof that disease of the sinuses underlying these areas of headache have ever added to the pain. It is most likely, Wolff says—"that the state of inflammation and engorgement of the turbinates, the ostia, the nasofrontal ducts and superior nasal structures is the basis of most of the pain emanating from the nasal and paranasal structures."

Occipital and neck headache is a common complaint of sufferers of sinusitis. Wolff has shown that noxious stimuli from any part of the head cause secondary contraction of the neck, scalp and shoulder muscles, and if these contractions are of sufficient duration, secondary pain in these areas may result. Secondary contraction of these muscles (as mentioned by Friedman earlier) may also be due to prolonged anxiety, emotional conflict or chronic tension, and hence may produce occipital and neck pain.

The implication of this work is obvious. Therapy to reduce sinus headache should be aimed at the nasal structures and manipulation of the sinuses should be avoided, unless absolutely necessary. Also, occipital and neck headache may not be due to sinusitis alone, as psychogenic causes may be paramount.

The study of brain tumour headache is of practical interest. Wolff has shown that headache over the site of the brain tumour occurs in about 35% of cases. If papilloedema is absent, however, it was found that the site of the headache was in the immediate region of the brain neoplasm in about 65% of cases. Headache in brain tumour is usually intermittent, but Wolff states that if it is continuous, the headache is greatly enhanced as an indicator of the tumour site. Headache in pos-

terior fossa tumours was found usually to be the first symptom and was present in all cases of posterior fossa tumour some time in their course. Its maximum site is generally over the occipital region, while supratentorial tumours are much more apt to cause pain anteriorly in the head and to be found as a first symptom in only 30% of cases.

Dr. Shane of Sidney, Nova Scotia, in October 1951, reported a clinical type of headache he calls fibrositic, and he believes that it is commoner than is generally thought. Fibrositic headache is believed to be due to trigger hypersensitive areas present in the skin or fascia about the head (usually the occiput), which give rise to persistent aching, unrelieved by simple analgaesics. These areas form palpable nodules and when pressure is applied, pain increases. Infiltration of these areas by 1% procaine has resulted in dramatic and permanent cure of these cases.

The clinical aspects and experimental data compiled on migraine and histamine cephalalgia are too extensive to be presented properly here. Suffice it to say that histamine headache has been shown to be due to dilatation and stretching of the pial and dural arteries and their surrounding tissues. Migraine headache has been proven to be a result of distention (following constriction) of cerebral arteries, chiefly the external carotid and its branches. Constriction of these arteries or a reduction of their amplitude will lead to a diminution or abolition of these migraine headaches. It is of interest to note that authorities have found true migraine to be rare among free clinic patients, but of high incidence in office patients.

Wolff has proven that increasing the intracranial pressure relieves the headache associated with histamine and fever. This he takes as proof that headache of a histamine or generally infective origin is due primarily to distention of intracranial arteries. Pickering and Northfield in independent studies also concluded that headache due to pyrexia and histamine were similar and due to dilatation of the arteries of the circle of Willis, with consequent stretching of the pain-sensitive structures in or around their walls. In both types, the headache is throbbing in character, is increased by shaking the head, and is relieved by jugular compression, increasing the cerebrospinal fluid pressure or by compressing the carotid artery in the neck.

Hypertension leading to headache is almost analogous to migraine and is due to dilatation and distention of certain branches of the external carotid artery. These headaches are not relieved by increasing the cerebrospinal pressure, but show temporary relief with ergotamine compounds and manual pressure on the temporal, frontal or occipital arteries. Ligation of the temporal or middle meningeal arteries may permanently decrease or abolish these headaches in some instances. Wolff postulates that the hypertension is a necessary factor in hypertensive headache, but does not believe that it is a sufficient condition in itself to produce headache. He is of the opinion that the arterial walls in hypertension

are distended in a moderate degree at all times and should stress, fatigue, or other factors be added, the distention assumes such proportions that pain results.

Post-traumatic headache is an ill-defined, yet important, entity. Headache accompanied by dizziness, difficulty in concentration, nervousness and insomnia is common following injury to the head, and is seen in 60% of such cases. Most investigators of this problem believe this syndrome is due to physiological and psychological factors, mainly insecurity. It is dependent in varying degree on the personality of the patient, compensating legal factors and environmental status. Friedman reports that the incidence of post-traumatic headaches was not influenced by blood in the cerebrospinal fluid nor increased cerebrospinal pressure at the time of the accident.

Wolff believes that post-traumatic headache associated with no organic cause is due to a sustained contraction of neck and scalp muscles, which produces secondary pain. This same mechanism of headache, we have seen, also occurs due to emotional states. Therefore, these emotional states may themselves account for, or at least enhance, post-traumatic headache.

Due to the above facts, it is generally recognized that patients who complain of post-traumatic headache with no apparent organic basis should be treated psychologically with early ambulation, occupational therapy, and physical and mental exercise. C. P. Symonds is of the opinion that the patient should truthfully be told his headache is merely an expression of his anxiety and that prolonged psychotherapy should continue from there if necessary. Ordinary analgaesics (aspirin and codeine) have few successes with post-traumatic headache, but show some benefit when combined with psychotherapy.

Psychogenic headache is perhaps the most important type of headache, accounting for about 90% of all headaches, according to Wolff and other authors. The differentiation of organic and psychogenic headache is often difficult, for the one may complicate the other, functional headache usually being added to a headache of an organic nature.

The psychogenic headache is usually presented to the doctor as a continuous pain of weeks' or months' and even years' duration. Analgaesics in these cases give little or no relief, as the patient will state, but sedation and environmental change may effect satisfactory relief. The patients are apt to dramatize their pain. On closer analysis these "pains" may actually be described as "weights on the head", "pressure" or "tight bands around the head", or other bizarre forms. These functional headaches are presumed to be emotionally induced and therefore become worse as the harrowing day progresses. They are not influenced by the position of the head and tend to be generalized. These patients eagerly volunteer information as to their suffering, and as Walshe so aptly describes it—"it is not information these patients wish to convey, but rather an impression that they wish to create."

Friedman and his associates utter a word of warning against making a diagnosis of psychogenic headache from the patient's description of his pain and cite several patients who presented with characteristic descriptions or psychogenic headache but were found to have brain tumours. There is no excuse for the lack of a good medical investigation of a patient presenting with a headache, whether it appears to be psychogenic or organic in nature.

On the other hand, in a patient with true severe headache of a physical nature, we see a strikingly different picture. These patients admit to pain-free periods and show an economy of speech and action, as these manoeuvres only tend to increase their true suffering. Their pain may vary in location on the head, is usually throbbing and increased by physical exertion and stooping. With lesions producing increased intracranial pressure, vomiting, papilloedma and mental changes, a slow pulse rate may become manifest in due course.

An interesting diagnostic screening test has been mentioned by Friedman for the differentiation of headache. He infiltrated the scalp with procaine hydrochloride. In those with psychogenic headache, Friedman found they gained relief in a few minutes, but patients with migraine, tumours or other organic causes received no benefit.

Evaluation of a Headache Patient

Evaluation of a patient presenting with a symptom of headache requires a thorough history and physical (including opthalmoscopic) examination and, if necessary, skull x-rays, air studies and EEG. If the patient desires a skull x-ray, it is deemed advisable to do one, as he may fear brain tumour and his anxiety may in itself be paramount in the production of his headaches. Psychological difficulties should always be looked for in headache patients, as these emotional troubles may initiate or aggravate headache. After a thorough investigation of the patient, he is more inclined to accept the physician's suggestions, and particularly psychotherapy if it is indicated.

Aspects of Headache Treatment

In a review of treatment available for headache, Friedman admits—"the number of therapeutic agents recommended for headache indicate the unsatisfactory condition of treatment." Migraine is particularly singled out for multiple approaches with drug therapy. Ergotamine and its compounds, mixtures with caffeine (Cafergot), histamine and others have all been tried with a variety of success. Surgery is not neglected. Sympathectomies and trigeminal sections have been tried with little permanent success in unselected cases. Even lobotomy has been tried. Ligation of temporal or middle meningeal arteries has shown some promise in the therapy of hypertensive and migraine headaches. Procaine hydrochloride infiltrated about the temporal artery in cases of temporal arteritis has shown good results. The specific and permanent cure for fibrositic

headaches has already been mentioned, as has the prophylaxis and therapy of spinal puncture headache. For post-traumatic and psychogenic headache (which in many respects are closely allied) a good patient-physician relationship and the giving of some remedy appears to give the best results. Placebos were found to be almost as effective as aspirin or codeine. Blumenthal and Fuchs point out the necessity of many long hours of interview and understanding of these patients with tension, psychogenic headaches. They recommend frank discussion with the patient, explaining the mechanism of the headache (in many cases this is excessive scalp and neck muscle contraction in response to the nervous tension of the patient) and the use of barbiturates. It is noteworthy that Friedman ends his article in this vein — "in my experience the drugs raising the pain threshold, acetylsalicylic acid and codeine, have not been supplemented in efficacy by many of the new compounds suggested in recent literature."

In closing, we see that headache is a symptom of broad magnitude and of considerable practical importance. It is perhaps the commonest symptom presented by the patient and for that reason alone we should have insight into its mechanism, clinical entities and treatment. I sincerely hope this paper has been able to draw together some of the many discrete facts and fit them into some sort of pattern for you.

BIBLIOGRAPHY

1. BLUMENTHAL, L. S., FUCHS, M., *Amer. Prac. & Dig. Treat,* 1: 1012, 1950.
2. BLUMENTHAL, L. S., FUCHS, M., *A.M.A. Archives Neuro. & Psy,* 65: 477, 1951.
3. BROWN, E., McLEAN, J.M., GOODELL, Helen, *A. Research Nerv. & Ment. Dis. Proc,* 23: 209, 1943.
4. FRIEDMAN, A. P., *Amer. Prac,* 3: 131, 1948.
5. FRIEDMAN, A. P., *Amer. Prac. & Dig. Treat,* 1: 948, 1950.
6. HUTTNER, W. A., *Amer. Prac. & Dig. Treat,* 1: 1190, 1950.
7. KLINGMAN, W. O., *Virginia Med. Monthly,* 77: 594, 1950.
8. LENNOX, W.G., *Science and Seizures,* 2 ed.; Harper & Brothers Publishers, New York & London, 1946.
9. McAULIFFE, Gervais W., GOODELL, Helen, and WOLFF, Harold, *A. Research Nerv. & Ment. Dis. Proc,* 23: 185, 1943.
10. McAULIFFE, G. W., MUELLER, G. C., WOLFF, Harold, *N.Y. State J.M.,* 50: 1113, 1950.
11. PICKERING, G. W., *Proc. Inst. Med. Chicago,* 18: 226, 1951.
12. SIMONS, D. J. DAY, E., GOODELL, Helen, WOLFF, Harold, *A. Research Nerv. & Ment. Dis. Proc.,* 23: 228, 1943.
13. WALSHE, F. M. R., *Diseases of the Nervous System,* 6 ed.: E. & S. Livingston Ltd., Edinburgh, 1949.
14. WEISS, E., ENGLISH, O. S., *Psychosomatic Medicine,* 2 ed.: W. B. Saunders Company, Philadelphia & London, 1949.
15. WOLFF, Harold G., *A. Research Nerv. & Ment. Dis. Proc.,* 23: 173, 1943.
16. YATER, W. M., *Fundamentals of Internal Medicine,* 3 ed: Appleton-Century-Crofts Inc., New York, 1949.
17. ZELDOWICZ, L. R. F., *Bull. Van. Med. Assoc.,* 26: 247, 1950.

HOMOEOPATHY*

JACK R. LEITCH, B.A., '52

Introduction

The following paper is intended to give a brief outline of the development of Homoeopathy as a system of therapeutics and its relation to orthodox medicine. Much of the controversial side of the homoeopathic argument and any reference to specific drugs is avoided, with the intention of remaining impartial. An attempt is also made to point out some of the beneficial influences Homoeopathy has had on the art and science of medicine.

Theories in Medicine

In the world of medicine, as in other branches of learning, there are and always have been, schools of thought and people with theories. Throughout the centuries there has been a succession of physicians so dissatisfied with current teachings that a new idea or a revival of an old idea would precipitate a revolt against the prevailing system. The importance of the innovation would usually be over-emphasized and certain leaders of the movement would become exceedingly dogmatic in their interpretation of the new doctrine.

Some of these theories have eventually become a part of orthodox medicine, others have been accepted with modifications and still others rejected entirely. The rejected theories seldom survived outside the pale of orthodoxy for long. One of these rejected philosophies of medicine has, nevertheless, remained in existence for more than one hundred and fifty years. Very little is heard about Homoeopathy nowadays, but it has survived to some extent and has exerted considerable influence on the development of modern medicine.

Chaos of the Eighteenth Century

The 18th century is still spoken of as the "Period of Theories and Systems". A great mass of facts had been discovered in the previous century and the hunger for research largely satisfied. Bewildered by all this material, the profession paused in experimentation and began to weave hypotheses. A kind of romantic rationalism took possession of scientific thought and medicine became largely metaphysical. Classifiers led the profession. Inkwells were busy and committed much mischief. The most casual observation, or no observation at all, was sufficient for the creation of a theory which included the entire medical art. A few examples of theories popular in the 18th century would be (1) the infarct doctrine of Kampf, (2) the animism of Stahl, (3) the vitalism of Barthez, (4) the phlogistic system, (5) the antiphlogistic system, (6) the neuro-pathology of Cullen, and (7) the stimulant school of Brown.

All this was uselessly and hopelessly complicated by an enormous increase in the number of therapeutic items, mostly rubbish, added to

*Read at a meeting of The Osler Society, University of Western Ontario, on Dec. 5, 1951.

the *materia medica.* Having a well-stocked armoury, the physician of that day felt that he was not doing his duty unless he gave the patient the benefit of it all and the "shot gun" prescription flourished. There was complete anarchy in the domain of therapeutics.

It was, however, a time of exciting progress in chemistry. Priestley, Cavendish, Scheele and Lavoisier were publishing the results of their researches. New data were accumulating, new syntheses were possible, new natural laws were being formulated. Stimulated by these scientific advances a certain Doctor Hahnemann conceived the possibility of formulating general principles governing the restoration to health of the diseased human being.

Hahnemann

Samuel Christian Friedrich Hahnemann (1755-1843) was the son of an artisan in the Meissen porcelain factory. (Meissen is south of Berlin near Dresden.) After beginning his study of medicine at Leipzig, he proceeded to Vienna for clinical experience and qualified at Erlangen. He began practice in a small mining town but moved on to a larger town where a municipal appointment gave him the necessary leisure to keep up with the current scientific literature. Because of his deep dissatisfaction with the accepted medical practices of the day, Hahnemann became so depressed that he resolved to give up medical practice and occupy himself in the translation of medical works. During the next twelve years he was busy rewriting current medical literature and finding in it little material of value.

The Simile

In 1796, twenty years after he left medical school, Hahnemann published an essay of his own titled *Essay on a New Principle for Ascertaining the Curative Power of Drugs.* In it he laid down the principle which was to become the basis of the system of therapeutics known as Homoeopathy: *Similia similibus curentur,* that is, "like should be cured by like". Most authors quote the Latin verb as *curantur,* "is cured", but research has shown that Hahnemann himself used the less positive subjunctive. This was the first tenet of Hahnemann and implied that a disease was to be treated with a remedy which, given to a healthy person, would provoke symptoms most resembling that of the disease. This opinion was based on experiments in which Hahnemann had administered various drugs to himself. He was neither a quack nor a fraud, but the theory was not essentially new.

The idea that "a hair of the dog that bit you" should be remedial has occurred to medical theorists from the time of Hippocrates onward, but it was not until the end of the 18th century that the theory was tested experimentally. The words *similia similibus curantur* appear in the Geneva editions (1658) of the works of Paracelsus, as a marginal heading of one of the paragraphs.

Proving and Single Dose

In developing the *simile* principle it was necessary to ascertain the curative properties of a drug by giving it to healthy individuals of both sexes in gradually increasing doses. The manifestations of drug action thus produced were carefully recorded and verified by repetition. This process was called "proving" the drug. In order to eliminate all complicating factors, it was essential to expound a second principle, that of prescribing a single drug. This principle was laid down in the following year (1798) by Hahnemann and was a remarkable break with the fashion of his day.

By comparing in detail the effects of a number of poisons from the scattered literature of toxicology and by proving drugs on himself and his large family, Hahnemann was able to put together a skeleton *materia medica.* He was most careful to collect and identify herbs of the field and prepare them himself from the fresh state. This procedure was an innovation which helped expose the great deceptions practised by the apothecaries who, for the most part, sold rubbish at high prices. Thus armed with his *simile* principle and his single prescriptions of carefully prepared and proven drugs, Hahnemann began to treat his patients.

Potency

In the first year Hahnemann discovered that the usual dose of the similar medicine was liable to aggravate the malady before it was cured. On the basis of this experience he began to reduce the amount of the dose. Before he was through with this reduction of doses, Hahnemann was prescribing dilutions of enormous proportions and supporting his procedure by a new theory known as the doctrine of potency.

Hahnemann stated that the chronic diseases of unknown origin resulted from the spiritual influence of the aetiological (moribific) agent on the spiritual, vital power of the individual. In order to combat this noxious influence a remedy of a spiritual nature must be administered. This immaterial remedial property was bound up in drugs and only released by increasing the surface of the drug by trituration and solution. Hahnemann felt that this subtle therapeutic activity would increase with dilution and be greater with the smaller dose. By extrapolating this concept he arrived at such astronomical fractions as one quintillionth of a grain and declared such amounts to have enormous therapeutic potency.

In laying down the laws of preparation of dilutions, Hahnemann paid much attention to the number of shakings (succussion) which, in his opinion, might turn a harmless medicine into a poison in the twinkling of an eye. He also invented the diminutive homoeopathic globules in which minute sugar particles were moistened by a drop of potentized medicine, one of these globules constituting the regular dose. It was the prophecy of Oliver Wendell Holmes that these globules would one day be a curiosity.

The doctrine of potency, or dynamization as it is sometimes called, was more or less a corollary of the doctrine of *simile.* Hahnemann explained that the potent principle released by dilution was almost exactly opposite to the property of the undiluted drug. He postulated that this new property could stimulate a response which would counteract an effect similar to that produced by the same drug in a concentrated form.

It has been suggested that Hahnemann only reduced his doses to the infinitesimal in response to the persecutions of the apothecaries who strongly objected to the doctor doing his own dispensing. In any case the clinical results claimed for this method were as good or better than those when ordinary pharmacological doses were used.

Symptomatology

It is worth noting that Hahnemann regarded the so-called surgical diseases as well as those diseases presenting an obvious, ascertainable or removable cause as unacceptable for homeopathic procedure. Because of his belief in the spiritual or unseizable nature of chronic ideopathic disease, Hahnamann stressed the concept of symptomatology as the basis for treatment rather than using the symptoms to aid in classifications and then treating the disease as an entity. Each diseased person was considered to have his own peculiar illness and required individual treatment, selected according to the totality of his symptoms.

Organon and Subsequent Developments

In 1810 Hahnemann published the first edition of his *Organon of Rational Healing,* the catechism of Homoeopathy, but it was poorly received. It has been recently stated (Bier) that it is "possible to find in this book the loftiest wisdom and the greatest folly, according to the reader's disposition and point of view". Shortly after 1810 Hahnemann went back to Leipzig where he lectured on his new system. He was not a success as a lecturer, but he gathered a group of interested students who collaborated in the provings of remedies. These provings were conducted under detailed supervision and ridiculous specifications. In the interests of his idea, the master imposed a strictly disciplined way of life upon his immediate circle. Whenever he sensed opposition or doubt, Hahnemann was as hard as iron and fulminated his excommunications in all directions.

The epidemics that followed in the wake of Napoleon's retreat from Moscow provided the opportunity for an extensive clinical application of his theories and he acquired a reputation as a physician. After publishing his *Materia Medica Pura,* incorporating his theories, he was severely attacked by his colleagues and the dispensing chemists. A court ruling was obtained prohibiting him from dispensing and he was obliged to leave Leipzig. Hahnemann had by this time formed a body of devoted pupils and the group rapidly attracted adherents.

By 1850 homoeopathic practitioners were to be found in most of the German states, in Austria, Poland, Russia, Switzerland, Italy and England. An extraordinary development of Homoeopathy took place in the United States, largely due to the work of Hering (1800-80), who was assigned the task of writing a book against Homoeopathy, but after investigation announced himself convinced of the truth of the new principles and devoted his life to research and practice.

Influence of Homoeopathy

As early as 1830, the principles underlying Homoeopathy had been seriously called into question, but it was realized at the same time that Hahnemann's work had exposed many earlier abuses and done some good. One of his contemporaries (Hufeland) lists nine points in favour of Homoeopathy without referring to the *simile* principle:

1) It will attract attention to the all-important question of individualization.
2) It will help to bring dietetics back to its own. (Hahnemann is to be commended by the medical profession for calling attention to the importance of diet and hygiene in therapeutics when these were very much neglected.)
3) It will prohibit large doses of medicine.
4) It will lead to simplification of prescriptions.
5) It will lead to more accurate testing and determination of the effect of remedies on the living subject, as it has to a certain extent already done.
6) The homoeopathic process will direct attention more to the preparations and bring about a stricter supervision of the apothecaries.
7) It will never do positive injury.
8) It will give the sick organisms more time for quiet and undisturbed self-help.
9) It will lessen the cost of curing to an extraordinary extent.

From such observations it was inevitable that further conclusions would be drawn. It was postulated that if good came from the minute doses of Hahnemann, as it apparently sometimes did, how much more good would come from no dose at all. In this statement we see the beginning of the therapeutic nihilism of the third quarter of the 19th century.

It is in the United States that Homoeopathy flourishes today. In other countries it has few practitioners and a few homoeopathy hospitals have been founded. Associations (some of which conduct examinations and grant diplomas) are in existence in England, the United States, Canada, Germany, France and Italy to further the principles of the school. In each of the countries mentioned, one or more journals devoted to Homoeopathy are published.

Validity

The quarrel between the homoeopaths and the allopaths, as the orthodox profession is designated, was a major issue a few decades ago. Anyone who has read *Homoeopathy and Its Kindred Delusions*, a medical essay by Oliver Wendell Holmes, written in 1842, will appreciate the concern felt by leading medical men of that time. There is no doubt that the homoeopaths were guilty of most of the crimes of exaggeration and advertising. The homoeopathic literature was full of ridiculous testimonials and worthless material. Anything that Hahnemann stood for was condemned along with all this accumulated rubbish.

Today the major supporters of Homoeopathy confine its use to the application of the *simile* principle in therapeutics and otherwise apparently orthodox in their viewpoints and have recognized medical degrees. Although the explanations advanced by Hahnemann for the principle *similia similibus* were shown to be wrong, this principle is held to be valid when properly employed.

The most reasonable explanaton of the *simile* at present involves the presumption that the body tends to maintain a functional norm. Reversible deviations from this norm tend to set into operation certain phenomena whose chief characteristic is the re-establishment of the norm. The *simile* presupposes that this intrinsic tendency can be supplemented and actively assisted by the employment of suitable stimuli. This thought is related to the Arndt-Schultz Law which states "that the same substance which in large doses will prove lethal, and in smaller doses inhibitive, will in minimal doses, prove stimulative to the same cells".

Otto Guttentag of the University of California, in a paper given in 1939, states, "Modern medicine has regarded the homoeopathic discipline as entirely valueless until only recently. - - - Beginning in 1925 a succession of events has taken place, especially in Germany, that indicate a broad re-opening of what has seemed to be a closed question." Guttentag then traces these events and their effects on recent medical philosophy and therapeutic thinking. This author concludes by saying:

"With the acceptance of the homoeopathic viewpoint in therapy, the barrier between medicine and homoeopathy will have been removed. As homoeopathy begins to lose its separate identity, its long history is recognized and its relationship to medicine in general reveals the pendulum swings of medical thinking. The history of homoeopathy so epitomizes in miniature the whole course of the philosophy of therapeutics."

BIBLIOGRAPHY

1. BOYD, Linn J., *A Study of the Simile in Medicine,* Boericke and Tafel, Philadelphia, 1936.
2. GUMPERT, Martin, *Hahnemann,* L. B. Fischer, New York, 1945.
3. GUTTENTAG, Otto Ernst, *Bulletin of the History of Medicine,* 1940.
4. HOBHOUSE, Rosa Waugh, *Life of Christian Samuel Hahnemann,* The C. W. Daniel Company, London, 1933.
5. HOLMES, Oliver Wendell, *Medical Essays,* Houghton Mifflin Company, Boston, 1891.
6. "HOMOEOPATHY", *Encyclopaedia Britannica,* Vol. XI, 1947.
7. "HOMOEOPATHY", *Chambers' Encyclopaedia,* Vol. VII, 1950.
8. METTLER, Cecilia C., *History of Medicine,* The Blakeston Company, Philadelphia, 1947.
9. SOLLMANN, Torald, *A Manual of Pharmacology,* W. B. Saunders Co., Philadelphia,1948.

ANXIETY*

K. R. FERGUSON, '52.

. . . The fears we know
Are of not knowing. Will nightfall bring us
Some awful order - - Keep a hardware store
In a small town. . . . Teach science for life to
Progressive girls - -? It is getting late.
Shall we ever be asked for? Are we simply
Not wanted at all?

These lines are from a recent poem by W. H. Auden which he calls *The Age of Anxiety,* believing that that title most typifies our period.

Most people agree that anxiety is a central problem in present day culture. Feelings of anxiety can readily be aroused at both individual and national levels. At the level of individual experience are examinations, a medical error and loss of affection, and at national levels are East-West tension, the power of unions and capitalistic monopoly. As it becomes apparent that anxiety is basic in both normal and abnormal behaviour, its understanding assumes capital importance. It is, therefore, with the view of presenting some of the theories of anxiety that I would like to direct your attention for the next few minutes.

The symptoms of anxiety are familiar to you all—experience is a poignant teacher—and that is as much as I am going to say about symptoms this evening.

Rollo May, consulting psychologist at Columbia University, has thoroughly investigated anxiety, and it is from his recent book, *The Meaning of Anxiety,* that I have drawn most of my material. Dr. May develops his thesis by discussing the philosophical, biological, psychological and cultural interpretations of anxiety; from these he draws his summary and makes his synthesis. It would be impossible to follow through all the arguments in any detail in a short paper, so that I can only hope to touch upon some of the highlights, hoping that theoretical statements will not lose meaning when presented with only a minimal development of argument and with little illustrative material. Finally to demonstrate some of the aspects of anxiety, I would like to refer to the case study of a patient who was hospitalized at Westminster Hospital.

Anxiety and Fear

There has been considerable confusion as a result of a failure to distinguish anxiety from fear. Fear is a feeling of apprehension cued off by a *situation* specific enough that a person can build a fight or flight attitude about it. Anxiety, on the other hand, is defined as the feeling of apprehension cued off by a threat to some *value* which the individual holds essential to his existence as a personality—obviously a much more vague target about which to build an attitude. These two concepts may be illustrated by Tom, a laboratory worker with a permanent gastric fistula, studied intensively by Wolf and Wolff. Tom experienced fear

when it seemed likely that an irate doctor would discover a mistake that he had made; when there was some uncertainty concerning the continuance of his position at the laboratory he felt anxious. In the first instance there was a specific situation arousing fear; in the second there were no specific factors upon which to focus his emotion.

Of biological interest is the fact that in Tom, at least, the emotion of fear was accompanied by *sympathetic* activity as indicated by blanching of the gastric mucosa, but anxiety resulted in accelerated gastric activity which is a *parasympathetic* phenomenon. The direct parallelism, however, between emotions and autonomic activity, is not of necessity a simple relationship, for the emotion as such is due to a certain relationship existing between the reacting organism and its environment, not to a certain neurophysiological reaction.

Essentially, the point of the differentiation between fear and anxiety is that the threat in fear can be objectified and dealt with overtly, the resolution being fight or flight. However, in anxiety the threat cannot be objectified as it is directed at the very core of the personality; the attack is from all sides, so that resolution is a much more complicated process. In fact fear is one method of dealing with anxiety, for if fear is not resolved by fight or flight, anxiety results. Thus anxiety is the more basic emotion.

Origins of Anxiety

In general, normal anxiety is considered to be an inherent characteristic of an organism to react to threats. The first and earliest reaction to a sudden threat is the "startle pattern" which involves blinking of the eyes and flexion of all parts of the body as if shrinking from the situation. It is a reflex activity of the lower centres of the central nervous system, associated with an inhibition of the higher centres. It is pre-emotional. Developmentally, as an infant realizes that the world does not just revolve about itself and as it becomes aware of its own status as an individual, anxiety can be noted as situations arise with which the baby is unable to cope. Probably the failure to substantiate Watson's two basic fears of loud sound and loss of support is due to the fact that these were novel stimuli for the baby and the reaction was anxiety, not fear, as with any novel stimulus. Fears and foci of anxiety, however, are not inherent, but are conditioned responses based upon the organism's relationships with its environment.

Specific origins of the psychodynamics of neurotic anxiety have been subjected to considerable investigation. Perhaps the first to formulate an aetiology for anxiety was Freud. His first theory postulated that anxiety was repressed libido, but that was later modified to state that the primal source of neurotic anxiety is the fear of separation from the mother's love. Freud's theories of anxiety remained in a flux throughout his life, and it is doubtful if he ever resolved the problem to his own satisfaction.

Sullivan suggests, on the basis that personality is essentially an interpersonal phenomenon, that anxiety arises in an individual out of the apprehension of the disapproval of the significant persons in his interpersonal world. Since the significant person to the infant is usually the mother, it is her disapproval that sets off the chain reaction leading to neurotic anxiety. This disapproval or rejection by the mother is felt emphatically by the infant long before it is realized consciously.

Horney feels that basic anxiety—that is, which later in life becomes neurotic anxiety—has its origin in the child's conflict between his dependency upon his parents and his hostility towards them. This, like Sullivan's theory, depends upon a disturbed relationship in early life between the child and significant individuals in his environment.

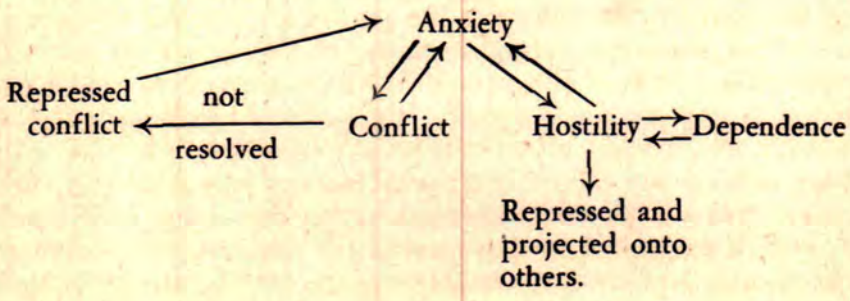
Normal and Neurotic Anxiety

In the above discussion reference was made to the origins of both normal and neurotic anxiety. The distinction between these two types of anxiety, although often difficult, is extremely important; for one, the normal, is used for a constructive solution to a problem and is, therefore, an important motivating force; whereas neurotic anxiety results when defence mechanisms are used in the avoidance of a problem.

Neurotic anxiety is a reaction to a threat which is (1) disproportionate to the objective danger, (2) involves repression or dissociation and other forms of intrapsychic conflict, and, as a corollary (3) is managed by means of various forms of retrenchment of activity and awareness, such as inhibitions, the development of symptoms and the varied neurotic defence mechanisms. Yet, it must be remembered that the reaction to the threat is not disproportionate to the subjective threat as visualized by the individual experiencing the anxiety; this subjective approach must be kept in mind if the individual's anxiety is to be understood properly. An individual who experiences an inordinate amount of anxiety does not carry an inordinate amount of anxiety in his personality, but is inordinately vulnerable to threats.

Anxiety, Conflict, and Hostility

The relationship among anxiety, conflict, and hostility may be represented diagrammatically, although the interactions are not necessarily as straight forward as indicated:



Neurotic anxiety generates conflict, and unresolved conflict may lead to repression, which in turn generates more anxiety. The basic factor in these conflicts underlying anxiety is believed by May to depend upon the relationship between the individual and his community. Emotional security is realized when there is a proper balance between self-awareness and a successful interpersonal relationship within the community. Emotional growth involves a decreasing dependence upon the parents and an increasing self-reliance. Inadequacy at either pole may result in psychological conflict leading to anxiety. Should the parents allow complete freedom without relatedness the anxiety of a defiant and isolated individual will result. On the other hand, should the child grow without the gradual severance of the parental bonds, there is a lack of self-reliance and threats are seen in any novel situation. In either case hostility develops; in the first instance, it is directed towards those who isolate him, and in the second, towards those who suppress him. In adulthood an anxious person is very closely attached to some other person, yet feels hostile towards that person as that attachment symbolizes the anxious person's helplessness; however, the hostility will be repressed in proportion to the dependence for fear of generating counter-hostility resulting in alienation.

Anxiety and Culture

Some of the rationale for Auden's designation of this period as "The Age of Anxiety" may be seen in a cultural interpretation of anxiety. It is this aspect of anxiety that is perhaps most readily understandable, for the dynamics are not particularly profound and are within the experience of most of us. Yet, because of its implications, there is considerable repression of the conflicts arising from the anxiety incipient in our modern culture and the subject is broached with some trepidation although with interest. For its better understanding some references have to be made to the development of our modern culture and there might well be just criticism for the consideration of only those developments pertinent to the present theme. However, I feel that a weighted survey merits emphasis and negative arguments will have to be omitted.

There are two phases to the cultural considerations of anxiety. First, the kinds of anxiety, or the stimuli that arouse anxiety. These are based upon individual values and are largely conditioned by the environment or the culture. The second is the amount or quantity of anxiety which is largely dependent upon the stability of the culture. As a result of the present instability or flux in cultural values, orientation is difficult and anxiety is evident. Since stability in the immediate future appears very unlikely, this trend in all probability will be intensified.

What is it in our culture that makes anxiety typical of this era? Summarizing the studies of several sociological researches, May states that the goal of social prestige dominates in our culture and the criterion of social prestige is individual competitive success. The high valuation

placed upon individual competitive success is extremely vulnerable and when it is threatened anxiety results. Individual competitive success is identified with self-esteem and is used as a means of obtaining security in the eyes of one's-self and others. The mensuration of success, however, in a culture in which the radius of activity is so large, is principally by monetary means. Thus success and the evaluation of persons is judged on economic grounds and, therefore, the aggrandizement of wealth becomes an end in itself. The psychological implication is that, lacking the creativity of workmanship, this end is singularly devoid of intrinsic satisfactions.

Further, as success is competitive it involves the triumph over others which increases intrasocial hostility and interpersonal isolation. Success, too, since it is relative to the success of others, is insatiable. Threat of failure to reach the subjective goals that one sets in one's competitive success generates anxiety. A circular reaction results, for the anxiety leads to greater strivings for success, more hostility and isolation and increased anxiety.

But why should individual competitive success be such an all-pervading attribute of our society? It is certainly not a specific attribute of human nature. A historical approach which dates the development from the Renaissance, best clarifies this situation. As the hierarchy of both church and society in the Middle Ages became a means of suppression of individual vitality and endeavour, with symbols becoming ends in themselves, there resulted depression, melancholy, scepticism and much anxiety. Partially as a reaction, during this period, there arose a great emphasis upon the powers of the individual. This trend was abetted by the simultaneously occurring economic, political and intellectual changes. The positive aspects of the apotheosis or deification of the individual may be readily observed in the unparalleled expansion and unequalled development up to the present time. Yet, on the negative side, the gains made in individual freedom laid the groundwork for interpersonal isolation and compulsive competition. The concomitant anxiety associated with these negative aspects was at first resolved by two general attitudes. Firstly, individual economic striving would redound to the benefits of the whole society—that is, the policy of *laissez-faire*. This, of course, increased competition, magnified the role of wealth and lead to more aggression, hostility and anxiety. Secondly, the pursuit of individual reason would lead to ultimate harmony of the individual within a society. Anxiety was thus dispelled and knowledge spread, but only by the suppression of emotions as being inexplicable in a world of rationalism in which attempts were made to discover "laws" for all aspects of the universe. The result was a profound psychological disunity, evident by the nineteenth century. Science lacked any conceptual unity. Economic individualism, expressed as monopolistic capitalism, did not increase the social weal, but led to dehumanization and alienation of persons.

Tawney states that the fallacious assumption is that individual freedom for aggrandizement is sovereign over social function. Such freedom cannot unite men for it repudiates the bond of service to a common purpose since its very essence is the maintenance of rights irrespective of service.

Twentieth century Western culture is characterized by disunity and traumatic change with resulting inconsistencies and contradictions. Witness only the inculcation that success is available to each and all by hard work, initiative and maintenance of purpose, when in reality it is largely determined by capital and the demands of the market. Due to such cultural contradictions basic individual values are on an infirm foundation and easily threatened with the development of anxiety as a result. A break in the stock market would not alter the material wealth of the country, but the resultant panic would materially alter the "staunch" European stock of the country. The dialectic or two-fold nature of freedom provides freedom from restraint and authority, but also demands new forms of relatedness. The psychological isolation of modern man arising from individualism is associated with a failure to create new forms of relatedness. Totalitarianism, a social neurosis, is an endeavour to overcome isolation by means of a pseudo-community. The problem of the present culture is to find adequate forms of community.

Methods of Dealing With Anxiety

A discussion of anxiety would have little meaning without reference to the manner in which it is handled and to point out some of the positive and constructive means of utilizing it. Firstly, let us consider some of the negative methods: they run the gamut from simple shyness through the neuroses and psychosomatic complaints to the extremes of psychoses and death. Anxiety can be avoided without solving the conflicts and it is not abnormal to do so; the mechanism is not neurotic unless it becomes compulsive. However, it does tend to limit one's self-realization. Rigid thinking, as in religious or scientific dogmatism, does relieve anxiety temporarily, but to the exclusion of the discovery of new truths. Belief in fate avoids responsibility for one's conflicts, but at the loss of creativity. Frantic activity dissipates the excess energy bound up in anxiety, but compulsive work is rarely directed towards solving the significant problem.

When the anxiety becomes intolerable neurotic patterns develop. A neurosis is an intrapsychic compensatory pattern by which security can be preserved despite conflict. It involves a repression of tendencies associated with the conflict situation, that is, a dissociation and also an inhibition of activities that would place a person in a situation of danger. In severe conflict even the neurotic compromises may be inadequate to deal with the threat and the individual may be forced to renounce a large area of activity or reality in a psychosis or to renounce life itself as in suicide or "voodoo" death. The common denominator of all these nega-

tive methods is a shrinking of the area of awareness and activity to obviate the conflict which causes the anxiety. This amounts to a curtailment of freedom and there is a sacrifice both of self-development and of interrelation with one's community.

More important, however, are the positive or constructive methods of dealing with anxiety. Anxiety is a challenge to clarify and resolve an underlying problem. It is a sign of intrapersonal struggle, and since serious disintegration has not occurred, the prognosis is good. Psychotherapeutically, anxiety is solved in two ways. Firstly, by expansion of awareness or interpretation, and secondly, by re-education or re-orientation. Neurotic anxiety is a result of a failure to cope with previous normal anxiety. But normal anxiety should not be regarded as unwholesome, for it may and should be used constructively, which avoids repression and retrenchment leading to neurotic anxiety. The question is how to use anxiety constructively. Objectively, it is necessary to move through, rather than around, the anxiety creating experiences, realizing that it is a positive means of enlarging one's self-awareness and interpersonal experiences. Subjectively, it is necessary to realize that the values to be achieved by confronting the danger are greater than the values to be gained by flight or escape.

Examples of the values to which reference has been made upon numerous occasions in this paper vary considerably from person to person and from culture to culture. That is, in part, why anxiety is so prevalent in our era. For the first time many cultures and many peoples with different values are associating in rather close proximity and values are not well defined. Some of the more evident ones might be the preservation of life, social prestige, satisfaction gained by the greater use of one's powers, or less concrete ones such as the values of the discovery of new truths. Broadly speaking, it is the person's "religious" attitude towards life when religion is defined as the basic presupposition of what is and is not of worth.

Summary

1) Anxiety is the apprehension cued off by a threat to some value which the individual holds essential to his existence as a personality.
2) Normal anxiety is inherent in the organism.
3) Neurotic anxiety depends upon a disturbed relationship in early life between the child and significant individuals in his environment.
4) Neurotic anxiety, hostility and conflict are concomitant emotions.
5) The anxiety associated with our culture is a result of the emphasis placed upon individual competitive success and the present problem is to find means of obtaining adequate forms of community.
6) Unsatisfactory methods of dealing with anxiety result in a sacrifice for both self and interpersonal development; satisfactory methods result in a new relatedness and a greater degree of autonomy. That

is, the positive aspects of selfhood develop as the individual confronts, moves through and overcomes anxiety-creating experiences.

Case Study

To demonstrate some of the features of anxiety I would like to present a short case history of a patient who was admitted to Westminster Hospital this summer with a diagnosis of anxiety neurosis, and to point out some of the aspects of this case related to the previous discussion on anxiety.

The patient, a 22-year-old university student who was taking summer training with the R.C.A.F., was admitted because of night terrors. On several occasions in the barracks he woke up screaming or yelling, disturbing the barracks and upsetting himself as he realized that his anxiety was beyond voluntary control.

Three years ago he had his first night terror while staying with an aunt and uncle in Chicago where he was working. A second one occurred about one and a half years ago, and since then they have been present with frequencies up to two a week. At home they are tolerated, but in a barrack situation they are the cause of social embarrassment. He is unaware of any precipitating factors.

Physical examination reveals only such other manifestations of anxiety as headaches for the last three years, recently of greater frequency and intensity, some loss of appetite and a weight loss of twelve pounds.

The patient was born in 1929, at which time, as the financial status of the family was rather precarious, he was an unwanted child, a fact which his parents did not try to mask. His father is described as being high-strung and a heavy drinker. There have been numerous quarrels between him and the patient. His mother was an orphan and, for this reason, the patient excuses her for being unable to provide the affection which he feels a mother should provide. He has an older brother, 26, single and living at home, with whom he has been on poor terms for over three years following a violent fight. He gets along fairly well with his married sister of 29. It is of interest that she, too, has had night terrors for which she sought psychiatric advice.

The home environment is anything but congenial. Meals are eaten in almost complete silence and after the meal each member of the family retires to their respective rooms. The living-room was not used until the patient began to study there, and then his parents decided to use it for their evening drinking. Friends of the children were never welcomed; any hobbies that made a muss in the house were discouraged.

At school the patient has stood well up in his class, but he felt unwanted in athletics, always being picked last in any team activity mainly because of his size. He stopped school at fifteen to help his father, who was in poor health, but left as his father would not stop

drinking and his brokerage business was suffering. The patient's most successful business adventure was in the used car business, but even in that he felt that once he had reached a peak he began to slip and could not regain it. Disillusioned at prospects of success without further education, he finished his matriculation and entered engineering a year ago. He did quite well at school and worked extremely diligently, almost frantically.

Socially, he enjoys movies, dances and going out with the gang who are his former business associates rather than university friends. He had been going steadily with a very attractive girl for three and a half years until six months ago. He broke up with her after a fight when he had discovered her going out with other boys, which she had been doing all along and which the patient spent much time trying to prove. This spring he again went steadily with a girl, but she returned his fraternity pin when she found out that he was in hospital.

Psychological tests show an I.Q. of bright normal range and a compulsive desire for accuracy. Personality investigations demonstrate anxiety, depression, tension, aspirations perhaps beyond realizations, and much underlying aggressiveness. Further personality disintegration is prognosticated as a possibility.

Discussion

No particular neurotic fears or phobiae are demonstrated in this case because the anxiety is still very much present. In reference to neurotic fears it might be mentioned that they perform the function of covering up the conflict and bear a consistent and subjectively logical relation to that particular subject's pattern of underlying conflict and neurotic anxiety.

The origins of the anxiety in this case seem clearly to lie in the early home situation. As a child he was undoubtedly rejected by his mother, but now cannot accept that fact and attempts to make excuses for her inadequacies. Therefore, the rejection was never accepted as an objective fact, but was held in juxtaposition with idealized expectations. Could the rejection have been accepted and sources of affection sought for in other places, neurotic anxiety would probably not have resulted.

Conflict and hostility are very evident in this personality. Conflict began with the appreciation of the parental rejection at a time when he was extremely dependent upon them for security. The hostility aroused was repressed because of guilt feelings and fear of counter-hostility and thus more anxiety developed. This conflict is pointedly marked in his present relationship with girls. He grasps onto them like a drowning man and demands their affection. But his dependence upon them symbolizes his own helplessness and hostility develops. Thus his relationship is stormy and emotions flow hot and cold. The girl, either frightened or confused, eventually leaves him.

The method of dealing with anxiety in this case has been unsuccessful. He stated that, in the past, if some problem presented itself he could pound it into the ground, but he feels that these night terrors are beyond his grasp, since, as a manifestation of anxiety, they appear to converge from all sides. Thus the patient cannot orient himself and objectify the threat. He has tried running away and frantic activity, both without positive results, and feels that the next step could well be a psychosis. The prognosis is not particularly happy, for, at the time of discharge, although aware of the intrapsychic mechanisms, he refused to accept them. A prolonged course in psychotherapy could, perhaps, producce a more favourable prognosis, although it is conceivable that, if no severe threats occur in the near future, he will be able, in time, to better relate himself to others and develop an increasing amount of self-awareness and thereby lessen his neurotic anxiety.

THE PAPYRUS EBERS*

P. LAIRD GIBBS, B.A., '52

The title of my paper for this evening is perhaps poorly chosen, for much of what I am about to discuss during the next few minutes will not be confined to the subject of this papyrus directly. At the appropriate point, or points, specific reference will be made to the contents of this "oldest of books". However, I hope to acquaint those of you who are not familiar with this ancient pharmacopoeia with the manner in which it was discovered and later on given to the world in an understandable form. In addition, it is hoped, in part at least, to orient you towards an understanding of its subject matter so that the text of the Ebers will appear to have some rationale.

That there is a papyrus known as the "Ebers" is perhaps a stroke of fate, but a fortunate one. Ebers, an Egyptologist, was excavating near Thebes in the winter of 1872 when he was visited by an Egyptian from Luxor who revealed that he had a valuable papyrus for sale. This had been found fourteen years earlier between the legs of a mummy in a tomb near Thebes at El Assassif. The price was high; for a while it seemed that Ebers would not obtain the document due to lack of funds. The monetary difficulty was resolved by a compatriot and Ebers returned with his find to the Library of the University of Leipzig. Any credit given to Ebers must not be due to the discovery of the document in which he did not participate, but rather to his translation and to the publication of facsimile editions. The original has been cut into pages and bound in modern form so that it is more readily accessible for study.

Although the Ebers papyrus is of undoubted interest to the medical historian, it offers little or nothing, in a scientific sense, to our profession in general; it is for this reason, perhaps, that a direct English translation from the Hieratic has never been made. Anything which has reached the English tongue regarding the papyrus' content has necessarily been either by way of a German translation upon which Ebers himself worked for three years, or upon another German translation by Dr. H. Joachim. My source material of a direct nature is necessarily limited therefore; the greater portion of my information has been obtained from Cyril P. Bryan's "The Papyrus Ebers," which is a translation into English from Joachim's version. Bryan, at the time he wrote this book, was Demonstrator in Anatomy, University College, London—another evidence of the frequent association of medical and cultural interests.

Perhaps it is unfair to suggest, as I have already done, that if the papyrus could offer something of benefit to the art and science of medicine, a direct English translation would be available. One must remember that the difficulties which would be encountered are many and that it would require many rare qualities and attributes in one person to accom-

---

*Read at a meeting of The Osler Society, University of Western Ontario, on Wednesday, November 7, 1951.

plish such a formidable task. In the opinion of one of England's most famous Egyptologists, F. L. Griffith, the man who could successfully—and I repeat—successfully—translate this work into English, must of necessity be a physician with a thorough understanding of anatomy, physiology and nosology, and at the same time have an excellent understanding not only of the Egyptian language and culture of the past, but the insight, the intuition if you like, correctly to interpret his findings into words with which we today are familiar and which have meaning for us.

In this regard it is interesting to note how the present translation has been obtained. The text was not, as so many believe, in Hieroglyphic but in Hieratic, of which the latter is the logical derivation of the former. The Hieroglyphic alphabet was designed originally for sculpture on stone or clay, but came in the course of time to be written on papyrus in a rather free-flowing style (although we would probably be most inept at it since it "flowed" from right to left) which we know today as "cursive". Again in the course of time, this alphabet was modified still further until in the eighth century B.C. the masses were using a script which was termed Demotic. As shall be seen, without these three steps and a "key" this papyrus and many others would still be unintelligible to us. However, in 1799 the Rosetta Stone was discovered, which proved to be the key to written Egyptian lore of past millenia. On this stone were found Hieroglyphic characters with their Demotic and Greek equivalents; when these relationships were finally unravelled in 1822, the store house of Egyptian culture was no longer inviolate. With direct reference to the Ebers papyrus translation was effected from the Hieratic into Hieroglyphic (since the Hieratic was not on the Rosetta Stone), then into Demotic and/or Greek, and thence into the German. At the same time, a Hieroglypho-Latin glossary was prepared. With such a round-about method involved and with Hieratic and Hieroglyphic what they are, I find it amazing that a task of such magnitude was ever accomplished. And if omissions are noted, or controversy creeps into the meaning of a word, phrase or sentence in the various translations, one need only remind oneself that such an indirect route can only result in some ambiguity.

It has already been hinted that the task of translation was of no mean proportion, but some indication, in present day measurements, of the size of the papyrus will enable us more fully to comprehend the magnitude of the commission. As the papyrus was originally delivered to Ebers, it was a roll one foot wide and 68 feet long. It was divided into what one may call "pages", all of equal size, each numbered at the top, and each containing about twenty lines. The last page is numbered 110 —to the Egyptians a perfect number—but in order to accomplish this, the numbering jumped from page 27 to page 30 without any apparent break in continuity of the text so that there are, in effect, only 108 pages. The transcription has been beautifully accomplished. The body of the

text is in black with illuminated rubrics and it is said to look as if it was written yesterday. Probably the same conditions of temperature and humidity which permit mummification are responsible for such a fresh appearance.

You perhaps are wondering who undertook to write 68 square feet or 2,160 linear feet of Hieratic and what purpose was accomplished. The Scribe himself must remain anonymous, although experts have placed his work "with a probability bordering on certainty" as written around 1553-1550 B.C. in the reign of Amen-Hotep I. In other words, the papyrus itself is now about 3,500 years old. Its contents are however much older since many recipes date back to the First Dynasty—*circa* 3,400 B.C. Ebers himself believed that he had discovered a recent edition of number 40 of the Hermetic Books which were written during the First Dynasty and which were said to contain the sum of human knowledge at that period in history. The papyrus is to be regarded then as the 1550 B.C. edition of a book on Remedies written about 3,400 B.C. and hence is not an original in the true sense; rather it is a compendium which embraces the original plus the alterations and additions of a further twenty centuries. Ebers' claim that the papyrus was based on part of the Hermetic series has often been refuted, but no alternative which can fit the facts so well has yet been suggested. It would appear therefore that the purpose behind the papyrus was to gather together, from various sources, the various Egyptian remedies up to *circa* 1550 B.C.

That the originals were in anything but a good state of preservation is indicated by the phrase "Qem Sen"—"found destroyed"—which appears throughout the papyrus; this would seem excellent proof that the unknown scribe was copying other documents and not writing, at least *in toto,* from personal experience.

What has the transcriber copied so assiduously? Surgeons would not be flattered since specific reference to the knife or cautery is made in perhaps a dozen places. One finds instead, 811 prescriptions for the medical treatment of many ailments. What these ailments represent, in present day terms, is due to the elucidation of Dr. Joachim; without his insight the diseases would mean nothing and I think a perusal of the uninterpreted translation would justify our use of the term "gibberish". By our present standards, at any rate, the maladies are defined in very cryptic fashion. One gathers from a perusal of the elucidated prescriptions that "shot gun" remedies are as old as medicine and that placebos are no younger—I shall demonstrate both types of prescription to you shortly. The pharmacopoeia consisted of a strange array of mineral, plant and organic substances in which fancy and phantasy were given full rein. To illustrate the latter points: if clay was being used—internally or externally—one had the choice of clay-from-the-gate, clay-from-a-statue, clay-from-the-wall, and mason's clay, while yet another prescirption calls for the-film-of-dampness-which-is-found-on-the-wood-of-ships. As

a vehicle beer took many forms—plain beer, sweet beer, bitter beer, cold beer, warmed beer, flat beer, yeast-of-beer, froth of beer, beer-which-has-been-brewed-from-many-ingredients and swill-of-beer. One must not overlook the organic armamentarium which I am sure must have healed by faith or fright, for instance: 1/32 part of the tail of a mouse, the womb of a cat warmed in oil, male and female semen, male and female milk, male and female urine derived from the fish, bird and worm. It is interesting to note that the Scribe endowed *his* faeces, *his* urine, *his* pen, *his* papyrus with healing properties; one wonders if the Scribe was ridiculing in this manner his sources of information.

Against this strange array of medicines can be lined up true drugs which we use in one form or another to this day and which constitute the active ingredient or ingredients of many a remedy. One notes collyrium, calamine, copper sulphate, honey, castor oil, olive oil, petroleum, salt, yeast, sulphur, aloes, balsam, caraway, coriander, fennel, figs, juniper, linseed, poppy, turpentine and so on as staples in many a present day prescription.

That "shot gun" therapy is not new should be evidenced by the following prescription "to heal the diseased toes: fennel, wax, incense, cyperus, wormwood, dried myrrh, poppy-plant, poppy-grain, elderberries, berries-of-the-uantree, resin-of-acanthus, resin-of-the-mafet-tree, grain-of-aloes, fat-of-the-cedar-tree, fat-of-the-uan-tree, fresh olive oil, water-from-the-rain-of-the-heavens. Make into one and poultice for four days." I would not like to go on record as classing the following as a placebo but all signs point in that direction: "to clear out the accumulation of urine in a child's body, an-old-book-boiled-in-oil. Smear on his body."

The above therapies are, perhaps, extreme, yet they are typical of the care received by "patients" prior to 1550 B.C. and perhaps even centuries later. Today I suspect even the majority of the laity, widely read as they are in popular medicine, would consider such treatment irrational.

You will recall that a secondary purpose of this paper was to present these ancient remedies with a rationale to support their early use. I, myself, am not a believer in the efficacy of male semen or female milk for other than their respectively intended purposes and I am sure that all of you here this evening share much the same opinion. If, however, I can succeed in transporting you backwards in time to the era we are discussing, an era when present-day social, economic, educational and religious beliefs were not even visions, an era, in fact, when there were no fundamental differences between science and religion or between magic and reason, then our perspectives will be altered to the point of understanding and belief.

The crux of the problem is to be found in our present-day consideration of magic as compared with the ancient ideas of reason. In the period under discussion the benefits of scientific experimentaton were

absent; effects were assigned arbitrarily and empirically to apparent causes without investigation and purely on the basis of a presumed relationship based on inaccurate or incomplete observation. To the ancients this was reason; to us, by dictionary definition this is magic. From these observations, complete or incomplete, accurate or inaccurate, were derived the natural laws of the day.

A more important error, however, was the application of a specific "natural law" to a generalized field. That is to say that what was true (rightly or wrongly) in one sphere of nature was true in all spheres. Herein arose the fallacies in Egyptian medicine which today we consider as magic. An example is in order at this point. Sixty centuries ago the Egyptians noted that their soil was re-fertilized annually by the flooding Nile and that in non-flooded areas their corn crops were poor. I think it is fairly safe to assume some relationship between good crops and flooding in this instance. But the Egyptians went further. They noticed, for instance, that on flooded land which was parched and cracked by the rays of the sun mice came out of the cracks. They had already noted that the river gave added life to their crops—and hence to themselves; the next step was to consider that the emerging mice represented the highly distilled and purified life of the river itself. Hence, if in sickness it was deemed that a certain quantity of life was lacking, this deficit was removed by the eating of whole skinned mice. The validity of such an argument has long been over-ruled, nevertheless, it is interesting to point out that this same therapeusis is practised today not only in some parts of Egypt but surreptitiously by some English country folk. Although the general principle of such treatment has been disproved there are those still who look upon such beliefs of the past as reasonable although we must regard them as "magic".

This same type of reasoning ultimately lead to a belief in demonaic diseases of the body. Death, they found, came to all and sundry as the result usually of injury inflicted by some other living agent. When this cause was not visible then obviously some invisible being must be damaging the body. What better way to reach an invisible spirit than by calling to it in an attempt to exorcise it? And if the incantation occasionally worked, that was proof enough that it had merit. The same is true for such diseases as were cured by the "laying on of hands". Tuberculosis was once called the "King's Evil"; up until the time of Edward the Conqueror it was believed that the phthisis could be cured by the touch of a king's hand.

It would appear that I have strayed quite away from the Ebers papyrus, but this has been done with a purpose. An attempt has been made to show that treatment has in the distant past been based on incomplete and/or inaccurate observations, coupled in many conditions with a false impression of aetiology. Medical therapeusis has improved in the past 3,400 years, but I think it behooves us, especially in those

syndromes (and I quote) "the aetiology of which is not understood" to study, to review and to experiment so that future generations will not regard our writings as purely of historical interest—in short—as another Ebers Papyrus.

BIBLIOGRAPHY

BRYAN, C. P., *The Papyrus Ebers,* Geoffrey Bles, London, 1930.

EARLY DIAGNOSIS OF EMOTIONALLY CONDITIONED ILLNESS

MARC J. MUSSER, M.D., Madison, Wisc.
J. A. M. A. 147:11, 1951.

As a result of the recent revolutionary co-ordination of medical and psychiatrical investigation, a greatly improved understanding of the relationship between emotional reactions and physiological functions of the body has been achieved. It is now generally recognized that emotional disturbances may be important factors in the development of bodily disease and these must be given the same conscientious consideration as other aetiological agents.

The diagnosis of emotionally conditioned illness depends on a large number of subjective and objective observations which at times are unmistakable but which on other occasions are quite subtle. The early and less complicated psychosomatic problems are easy to deal with and respond more readily and more successfully to psycho-therapy. However, they may be quite difficult to diagnose because the presenting symptom is not apparent. Obvious manifestations of neurotic ideation or behaviour may not exist. The patient may present a history of clear-cut somatic symptoms and be quite unaware that any feelings of excessive anxiety or tension exist. The diagnosis, in the majority of such cases, is made on the basis of the nature and significance of the presenting symptoms, the physiological changes which they reflect and the elucidation of the underlying causal emotional disorder suggested by their presence.

A study of three hundred patients with early psychosomatic disease revealed that the most common symptoms encountered were weakness, asthaenia and easy fatiguability. These occurred singly or in combination in sixty-eight per cent of cases. Especially characteristic is asthaenia, which is present on arising in the morning; this gradually subsides so that by evening a state of well being is experienced. These patients find the problems of the day unpleasant and anxiety-provoking and they hesitate to contemplate them. However, as the anticipated threats pass, they seem to acquire a sense of security and confi-

dence which permits a reduction in tension and apprehension. In general, the psychosomatic patient feels weak and tired because he is tense, disinterested, bored, unwilling or frustrated in obtaining his goals. To such, a little assistance in resolving their emotional problems is of far greater benefit than the administration of iron or vitamin pills.

Insomnia was present in fifty-seven per cent of these patients. In the absence of organic disease this symptom should suggest unresolved conflicts, anxiety or a depression. Associated symptoms may be itching of skin, sweating, muscle cramping.

Gastro-intestinal symptoms frequently accompany emotional disturbances. These may be expressed as mild or severe anorexia, accentuation of pre-existing food idiosyncrasies, or in anxiety-allaying increased desire for food. Twenty-five per cent of the cases studied showed lack of appetite for breakfast. In many, nausea or satiety were experienced after one or two bites of food. However, they were able to eat breakfast later in the morning and the other meals of the day. This is an interesting parallel to the pattern of asthaenia and weakness.

Recurrent headache, localized or generalized, in the absence of organic disease, is a frequent symptom of psychosomatic disease. It is of interest that thirty per cent of the patients in this series, who presented with this complaint, had previously received intensive treatment for sinusitis, allergic rhinitis, atypical migraine, etc.

Pain or aching in the muscles of the neck, back, chest or extremity was a prominent presenting complaint in forty-three per cent of the patients. Such symptoms are frequent manifestations of excessive emotional tension, and are prone to occur when a person is operating under undue pressure or responsibility, or is forced to restrain aggressive impulses which have accumulated. Chest pain, so alarming because of its implication of coronary artery insufficiency, may be a manifestation of spasm or excessive tension in intercostal and/or pectoralis muscles.

The symptoms which have been discussed are some of the early somatic manifestations of emotional disturbances. Their presence as primary or secondary complaints in a medical history, and in the absence of subjective or objective evidence of emotional abnormality, may be the only indication of the psychosomatic nature of a patient's illness. When these complaints are present a thorough investigation of the life situations and personality of the patient is indicated.

—DOUGLAS W. HARPER, B.A., '52.

PSYCHIATRIC TREATMENT IN GENERAL HOSPITALS

A. E. BENNET, *et al*
J. A. M. A. 147:11, 1019-1023, 1951.

The modern concept of medical practice demands the treatment of the patient as a "whole man", i.e., treatment of both body and mind. It can be said, however, that while the diagnosis of organic lesions is becoming ever more skilful, the psychiatric aspect of the individual problem is consistently ignored so that many patients are driven, unconsciously perhaps, into the offices of cultists. The basic reason for this is laid squarely at the door of medical education through its failure to integrate properly psychiatry into general medicine. As a result, ignorance and prejudice dominate medical thinking; this is abetted by the refusal of general hospitals to admit mentally ill patients. This latter reason initiated a survey of psychiatric facilities in general hospitals throughout North America and of the use made of these facilities by medical schools in the same area.

The survey extended over a period of three years, and through repeated enquiries 97% of general hospitals with psychiatric units, no matter how small, replied. Sixty per cent of U.S. hospitals classified as general, but without psychiatric facilities, and 34% of Canadian hospitals in the same category replied to the questionnaire. The results in both groups are revealing. In the United States, hospitals offering full, partial or detention psychiatric service provide 14% of their beds for this purpose, but this represents only 4% of all general hospital beds. These, in turn, accommodate only 1% of all mentally ill patients. In Canada, too, 4% of general hospital beds are available to psychiatric cases. This is a bizarre situation since 25% or more of the admissions to general hospitals have emotional aspects as their bases and since the mentally ill actually fill more than 50% of all available hospital beds. In those hospitals without psychiatric units which replied to their questionnaire, 50% in the United States and 33-1/3% in Canada never admit a known psychiatric patient. Less than 40% of hospitals with psychiatric services are private; this seems to indicate that the public hospital is evading its full obligations to its patients.

The physical facilities of the psychiatric units were not surveyed, but the primary need for adequate, well-trained phychiatric personnel was studied. These included full or part time psychiatrists, psychiatric residents, interns and psychiatric nurses. As an example of shortage of personnel of this type, approximately 4,000 Veterans Administration psychiatric beds must be kept empty—and the Veterans Administration hospital programme is still expanding. This personnel shortage is due in part to the requirements of the armed forces and in part to deficient training programmes. This is best demonstrated in the rotating internship: in the United States only 2% provide rotation through psychiatric departments. Three hundred and nine American general hospitals and twenty-one Canadian general hospitals are training little better than an average of two and one psychiatric residents respectively.

The lack of integration of psychiatry and medicine at the teaching level, both graduate and undergraduate, was revealed in many ways through questionnaires forwarded to medical schools operating in conjunction with general hospitals. In the United States, of seventy-three schools with a four-year course, fifty-two have general hospital psychiatry. Of these fifty-two schools, only twenty-two taught psychiatry in all four years, only nine utilized all other departments, along with psychiatry as a means of teaching the subject, but forty-nine have full psychiatric treatment service in general hospitals, twenty-three are accredited for training residents and forty-two have research projects. In Canada, of ten four-year medical schools, seven use general hospitals for teaching psychiatry, of which six have full psychiatric treatment service and four are accredited for training residents.

Another evidence of faulty thinking is reflected in health insurance plans, such as the Blue Cross and the Blue Shield, in which only 10% and 4% respectively of their plans admit regular benefits for psychiatric disorders. This, in view of the fact that 15% of five hundred consecutive admissions revealed emotional disturbances which were treated as organic, from D. and C. to haemorrhoidectomy, also reveals that the psychogenic factor is being ignored, that the patient is not being treated *in toto* and that these seventy-five cases cost the insurance plans $5,400—without relieving the patients of the sources of their complaints.

As a result of these studies it is felt that minimal requirements for adequate psychiatric treatment in general hospitals require tripling the available psychiatric bed space in general hospitals and that five times as many general hospitals as are now active in the psychiatric field should be opened up to

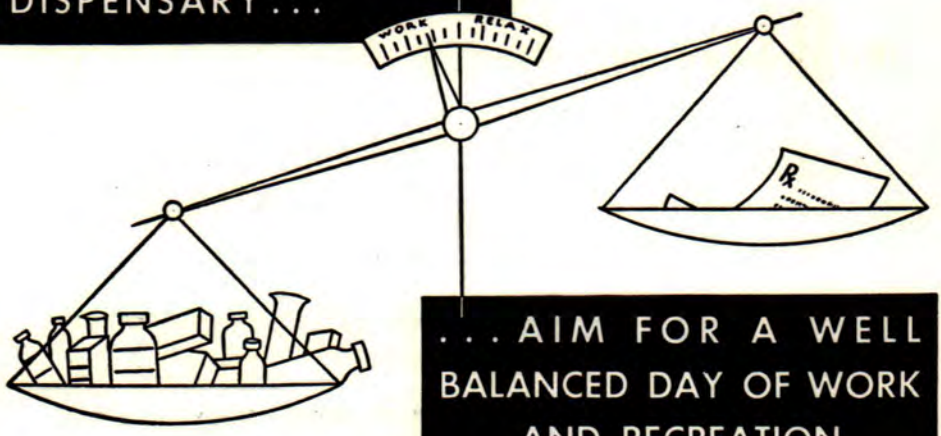
this specialty. This would provide 10% of all hospital beds for psychiatric use. In addition, the general hospitals should increase their mental health clinics to 3,500.

Conclusions:

It is felt that the individual psychiatrist, as well as his local and national organizations, have not shown enough interest in the problems outlined here. The more widespread use of general hospitals in psychiatric practice would integrate medicine and psychiatry, and benefit the community as a whole through early detection and treatment of mental illnesses. In addition, the standard of diagnosis would be raised and more personnel could be trained in this specialty; psychiatrists in turn would benefit by no longer being subject to the limitations of office practice. Health insurance plans should be encouraged to expand their coverage to include mental illnesses. Such recommendations would increase public satisfaction with medical practice, benefit public health, reduce the chronicity of mental illness, save needless expense and help preserve the private practice of medicine. By awakened medical and hospital administrative professions this goal can be achieved in a decade.

—P. LAIRD GIBBS, B.A., '52.

REMOVE THE LOAD OF RUNNING YOUR OWN DISPENSARY . . .



. . . AIM FOR A WELL BALANCED DAY OF WORK AND RECREATION

Let the PHARMACIST do all your dispensing

By so doing, you take a three-fold load off your mind and your pocket-book. Firstly, you are spared the expense and work of financing, stocking and dispensing an adequate stock of pharmaceuticals. Secondly, your mind is free to give undivided attention to a greater number of calls. Finally, you increase your opportunity to enjoy a more balanced life of professional activity and recreational leisure.

Your pharmacist has a complete stock of pharmaceuticals at your disposal ready to assist you in your work.

THE ONTARIO RETAIL DRUGGISTS ASSOCIATION